



**SGCCC**  
Sistema Guatemalteco de Ciencias  
del Cambio Climático

# Guatemalan System of Climate Change Sciences



## Introduction

Guatemala is considered one of the countries most vulnerable to climate change worldwide due to its social and economic situation; therefore, it must urgently seek ways to minimize the effects of climate change and prepare for its consequences. To achieve this, decisionmakers in the public sector and in civil society must be informed by science.

In response to this need, the Guatemalan System of Climate Change Sciences (SGCCC) emerged from within the National Network of Training and Environmental Research (REDFIA). The SGCCC is composed of scientists and researchers with experience, trajectory, and mastery of climate change issues in Guatemala.

The System was founded in 2014 by ten institutions from different sectors of the country that carry out research on climate change. It currently involves more than twenty institutions that coordinate efforts to integrate scientific research to review, analyze, and interpret the current status of the country in the field of climate change and subsequently communicate this information to national authorities and civil society.



Public events organized by the SGCCC.



Coordination Panel meetings.

## Role of the SGCCC

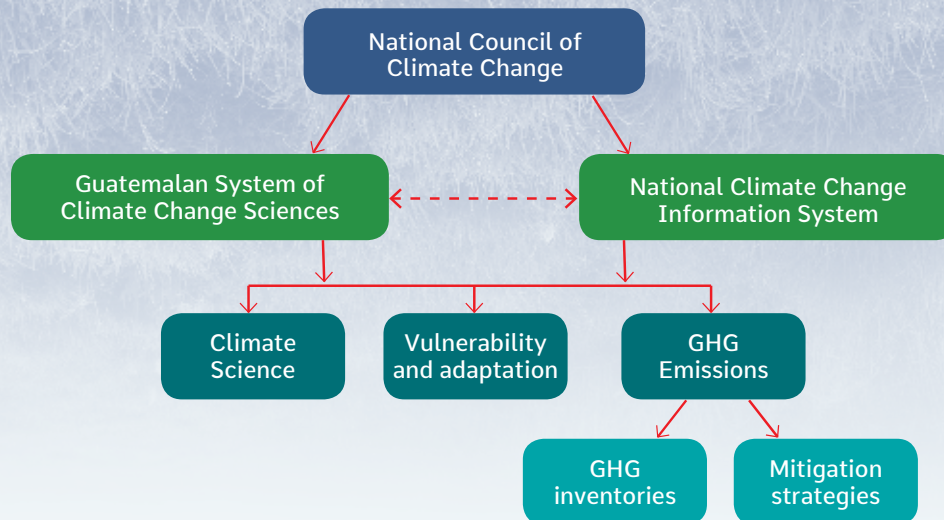
Within this framework, the main function of the SGCCC is to generate and review scientific information and then transfer it to political decisionmakers. This information is primarily in the areas of Climate Science, Adaptation and Vulnerability, and Mitigation and Greenhouse Gas (GHG) Inventories.

The SGCCC also supports the implementation process of Government Decree 7-2013: "Framework Law to Regulate Vulnerability Reduction, Mandatory Adaptation to the Effects of Climate Change and Greenhouse Gas Mitigation." It complies with the mandate of Article 7 of this law, which indicates that the country's universities and private research centers, in their spirit

of contributing to the solution of national problems, will promote research on climate change.

The System also fulfills the function of permanent advisory to the National Council of Climate Change (NCCC), created by Article 8 of said law, which is chaired by the President of the Republic and represents the highest authority on climate change in the country. This Council acts as a regulator with public and private participation, made up of all sectors of the country. The SGCCC helps to guide the policies, actions, strategies, regulations, plans, and programs for mitigation and adaptation to climate change that are defined by the NCCC.

# Interinstitutional Coordination Structure



## Institutions that conform the SGCCC

### Founding Institutions



### Institutions participating in the Working Groups

#### Researchers

- Ambiente y Desarrollo Consultores S.A.
- Asociación Sinergias para el Desarrollo Sustentable Bios
- Bio Consulting Group
- Centro Agronómico Tropical de Investigación y Enseñanza (CATIE)
- Centro Mesoamericano de Estudios sobre Tecnología Apropiaada (CEMAT)
- The Nature Conservancy (TNC)
- Colegio de Ingenieros Químicos de Guatemala (CIQG)
- Colegio de Ingenieros de Guatemala (CIG)
- Escuela Nacional Central de Agricultura (ENCA)
- Fundación Defensores de la Naturaleza (FDN)
- Instituto de Derecho Ambiental y Desarrollo Sustentable (IDEADS)
- Secretaría Nacional de Ciencia y Tecnología (SENACYT)
- Fews Net

#### Practitioners

- Asociación Guatemalteca de Exportadores (AGEXPORT)
- Comisión Nacional de Energía Eléctrica (CNEE)
- Coordinadora Nacional para la Reducción de Desastres (CONRED)
- Green Development
- Grupo Agroindustrial Occidente



✈ Instituto Nacional de Bosques (INAB)  
✈ Ministerio de Comunicaciones Infraestructura y Vivienda (MICIVI)

✈ Municipalidad de Guatemala  
**International**  
✈ CEPAL

All institutions and individuals that contribute to the development of research and implementa-

tion of mitigation actions and obligatory adaptation to climate change may join the SGCCC.

## Objectives of the SGCCC

- a** Provide scientific advice on climate change to relevant institutions and actors, including the National Council on Climate Change.
- b** Prepare periodic assessments of the country's situation on climate change issues, under the following approaches: 1) Climate Science, 2) Vulnerability and Adaptation, and 3) Mitigation and Greenhouse Gas Inventories..
- c** Issue public opinions and communications on climate change, with scientific support, as required by the national context.
- d** Coordinate, facilitate and/or carry out research on climate change issues prioritized by available financial resources in conjunction with the participating institutions.
- e** Coordinate activities and support in the generation of data for the National Information System on Climate Change, linked to MARN.

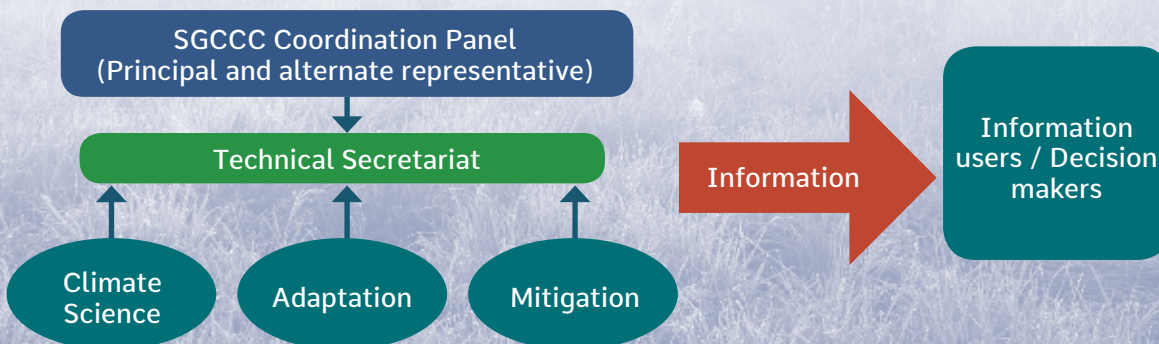
In addition to these functions of the SGCCC, there are other characteristics that contribute to its importance, such as the inclusion of traditional and ancestral knowledge, gender analysis, and various mechanisms for the

dissemination of information to the general public. In addition, it may act as a scientific liaison with other institutions at the international level, including the Intergovernmental Panel on Climate Change (IPCC).

## Organization and Internal Work

The System is made up of a Coordination Panel; a Technical Secretariat which rotates every two years; and three working groups, each addressing the three major issues at the national level in relation to climate change: 1) Climate Science, 2) Adaptation and Vulnerability, and 3) Mitigation and Greenhouse Gas Inventories.

The Coordination Panel is the link between the System and external actors. The Secretariat is the link between the Panel and the Working Groups, and is also the spokesperson for the SGCCC. The Working Groups are responsible for conducting document evaluations and research. Currently, the Secretariat is in charge of Universidad de San Carlos de Guatemala (USAC).



## The Working Groups

The **Climate Science** group addresses issues such as storing, systematizing, analyzing, and disseminating meteorological records, as well as generating models for projecting climate change into the future. This information is shared with various sectors, mainly with the agricultural sector to support crop planning and implementation of climate change adaptation measures. Currently, this group is coordinated by the Institute for Seismology, Volcanology, Meteorology, and Hydrology of Guatemala (INSIVUMEH) and is working on the unification of all meteorological information in a single, easily accessible virtual platform.

The **Adaptation and Vulnerability** group addresses issues related to water resources, biodiversity, agriculture, human settlements and infrastructure, renewable energy, and human health. Through this group, the Na-

tional Adaptation Research Agenda was developed, and in collaboration with the National Secretariat of Science and Technology (SENACYT), it contributed to the creation of research on resilience to climate change. It also supports the orientation of public policies, in support of the Framework Law on Climate Change (Decree 7-2013).

The **Mitigation and GHG Inventories** group addresses issues related to the reduction of greenhouse gas emissions (GGE) by different sectors of the country. It promotes the creation and use of new technologies, implementation of renewable energies, changes in consumption patterns, protection and / or creation of carbon sinks (forests) and agricultural practices with an agroecological approach. Through this group, the National Mitigation Research Agenda was generated. In addition, it supports the GHG inventory process of the country.

## Main dissemination activities

The SGCCC, through the Technical Secretariat and its Working Groups, in order to fulfill its role of disseminating information to the population on climate change, generates documents and newsletters with scientific support on different topics of national interest. It also generates and distributes electronic newsletters fortnightly with recent information, columns, news, and important events on climate change. The documents can be consulted and downloaded at the website [www.sgccc.org.gt](http://www.sgccc.org.gt) and if you wish to subscribe to this newsletter, please request it at [info@sgccc.org.gt](mailto:info@sgccc.org.gt)

The SGCCC organizes public events such as annual socialenvironmental forums, and it is in charge of organizing the National Congress on Climate Change, two of which have already been held in 2014 and another in 2016. These biannual Congresses have had the successful participation of more than 600 people, represented by all sectors. The next Congress is scheduled for 2018. The information presented at the Congresses is available and can be consulted on the website [www.cambioclimaticogt.com](http://www.cambioclimaticogt.com)

Likewise, constant trainings are carried out on climate change and global warming directed at different audiences such as students, professors, journalists, and technicians. There are also public presentations with different entities such as embassies, government institutions, the private sector, and political decisionmakers to present relevant information on priority issues in the country.

Thanks to the coordinated work among the institutions that comprise it, the System has been able to position itself in various spaces and become visible in the country's political environment, making a great contribution to knowledge on climate change and environmental management in Guatemala.

## What are we doing now?

The System directly supports the Government of Guatemala through constant participation in the various activities and actions related to the Framework Law on Climate Change. At present we contribute scientific knowledge in the process of elaboration and revision of several documents of national importance, led by the Ministry of Environment and Natural Resources, among which we can mention: the elaboration of the Country Position before the COP on Climate Change; The National Action Plan for Adaptation and Mitigation of Climate Change (PANCC); the Third National Communica-

tion on Climate Change; the different Regulations of the Law (Articles 19, 20, 21 and 22; and the development of specific Lines of Research in Climate Change (Article 7), among others. The SGCCC is already preparing the 1st Report on the Assessment of Climate Change Knowledge in Guatemala, which aims to assess the existing scientific information in Guatemala related to climate change to provide inputs to plan and strengthen science and public policies and formulate plans for actions.



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